



# *Service Manual*

## *Top Mount* *No Frost Refrigerator*



## INDEX

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## **NO FROST REFRIGERATOR: MODEL RANGE**

**410L Dlx - WRID41TW**

**410L Dlx – WRID41TS**

**410L Dlx - WRID41TC**

**410L Dlx - WRID41TN**

**445L Dlx – WRID45TW**

**445L Dlx – WRID45TS**

**445L Dlx – WRID45TN**

## Safety precautions and warnings

Read all instructions before using this appliance in order to avoid risk of accident or possible damage.

### Warning / Caution



#### Warning

This symbol is intended to alert the user to the possible death or injury.



#### Caution

This symbol is intended to alert the user to the possible injury or damage.

### Description of symbols



Indicates prohibition



Do not disassemble



Do not contact



Adhere the instruction strictly



Unplug from the electrical outlet



Earth the appliance to avoid the risk of an electric shock.



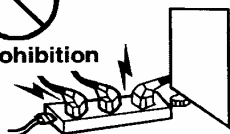
### Warning

**Do not plug multiple electric appliances into the same outlet.**

This may cause abnormal heating or fire hazard.



Prohibition

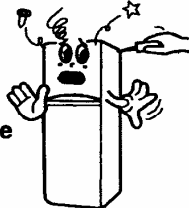


**Do not disassemble repair or alter.**

It may cause fire or abnormal operation which leads to injury.

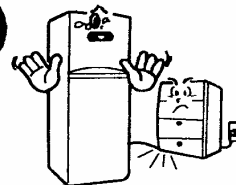


Do not disassemble



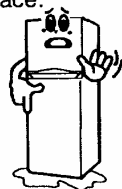
**Do not bend the power cord with excessive force or do not have the power cord pressure by heavy article.**

This may cause fire.



**Check the operating environment**

Do not install the refrigerator in a humid (with condensation) location or an unstable surface.

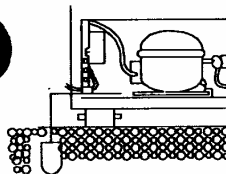


**Be sure to earth.**

If earthing is not done, it will cause break down and electric shock.



Earth

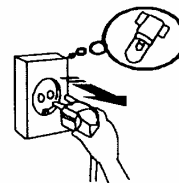


**Pull the power plug out for exchanging the interior lam of the refrigerator.**

It may cause electric shock



Unplug





## Caution

**Do not store bottled food or drinks in the freezing compartment.**

Bottles may explode causing personal injury.



Prohibition



**Do not store food in unstable manner.**

Opening the door may trigger loose items to slip & cause injury.



Prohibition



**Do not store anything other than food in the refrigerator.**

Medical supplies, which need to be under strict temperature control, should not be stored in the refrigerator.



Prohibition



**Do not put on top of the refrigerator.**

Opening or closing the door may trigger the loose items to slip & cause injury.

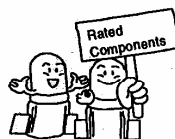


Prohibition



**When replacing electric components, be sure to use rated components.**

Check the model, rated voltage, rated current, operating temperature etc. of the component.



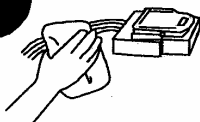
**When servicing the refrigerator completely remove dust or foreign substances from the housing, electric connections etc.**

This can protect against the risk of fire hazard caused by tracking and short circuit.



**Please wipe out foreign materials of the metal option of power plug cleanly.**

Use of it as it is may cause fire.



**After servicing the refrigerator be sure to check the components are reassembled in a correct manner.**

The service unit should be reassembled & return to its original assembly state.

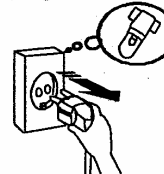


**Check electrical ports for the trace of moisture penetration.**

When the trace of moisture penetration is detected, insulation tapping.



Unplug



## **TECHNICAL /FEATURE SPECIFICATION**

<b>MODEL</b>	<b>410 L Dlx</b>	<b>445 L Dlx</b>
Type	Frost Free	Frost Free
Capacities (L) total net	410L	445 L
Product Dimensions (mm)		
Width	700	700
Height	1652	1762
Depth	695	695
Gross Weight (kg)	85	90
Voltage / Hz	220-240V/50-60Hz	220-240V/50-60Hz
Compressor	EMY65HLC	EMY65HLC
Oil Capacity	ISO 22 (280 ml)	ISO 22 (280 ml)
Comp. Run Capacitor	XS351505XLUB 5 microF/350VAC	XS351505XLUB 5 microF/350VAC
PTC Relay	PTH7M220MD3 Resistance : 17.6 TO 26.4 @ 25°C	PTH7M220MD3 Resistance : 17.6 TO 26.4 @ 25°C
Motor Protector	4TM283KFBYY-53 opening temp – 105°C Closing temp. – 61°C Trip current – 9.4 A@25°C	4TM283KFBYY-53 opening temp – 105°C Closing temp. – 61°C Trip current – 9.4 A@25°C
Fan motor	MI – AE2 2680 rpm , 230V , 50 Hz , 10.5W	MI – AE2 2680 rpm , 230V , 50 Hz , 10.5W
Split Diffuser	NO	NO
Deodorizer	Yes	Yes
Number of Shelves	2	2
Type of Shelves	Glass	Glass
Humidity Control	Yes	Yes
RC Illumination ( 8 LED Bank )	Illumination by LED's	Illumination by LED's
FC Illumination ( 2 LED Bank )	Illumination by LED's	Illumination by LED's
Bottle Separator	YES	YES
Packet Separator	YES	YES
Can Rack	NO	NO
Egg tray	1 No.	1 No.
Ice Twister Assembly	YES –Plastic	YES –Plastic
Ice Collector	YES	YES
Collapsible Shelf	YES	YES
Freezer Door Bins	2	2
Refrigerator Door Bins	4	4
Quick Chill Compartment	YES	YES
Door lock	NO	NO
Handle	RECESSED	RECESSED
Roof Rail	NO	NO
Cabinet Stopper	YES	YES
POT Control in RC compartment	YES,8 SETTINGS	YES,8 SETTINGS
Fast Forward Cool Operation	NO	NO
Door Alarm	YES	YES
Auto Power save mode	NO	NO

## **CONTROLS & ELECTRONICS CONFIGURATION**

<b>Product Configuration</b>	<b>No frost Dlx</b>
<b>Product Control</b>	<b>RC Controlled</b>
<b>Software</b>	<b>BEE/Pot based Professional</b>
<b>User interface</b>	<b>No</b>
<b>Auto cool mode</b>	<b>No</b>
<b>Ice accelerator</b>	<b>No</b>
<b>Auto Power save mode</b>	<b>No</b>
<b>Door Alarm</b>	<b>Yes</b>
<b>Power supply for illumination</b>	<b>DC (Linear 220mA)</b>
<b>RC Illumination (8 LED)</b>	<b>Yes</b>
<b>FC Illumination (2 LED)</b>	<b>Yes</b>
<b>Control Board</b>	<b>Yes(Nilgiri BEE)</b>
<b>Defrost heater</b>	<b>Yes (Integrated AI tube 275W)</b>
<b>Fan motor</b>	<b>10.5W MI Shaded Pole AC fan motor</b>
<b>FC Door grounding</b>	<b>No</b>
<b>Compressor</b>	<b>EMY65HLC</b>
<b>Run Capacitor</b>	<b>No</b>
<b>Door Reversibility</b>	<b>YES</b>

<b>RATED VOLTAGE :</b>	<b>220-240V,50-60Hz, IPH</b>
<b>VOLTAGE RANGE :</b>	<b>198V – 255V</b>
<b>INPUT WATTAGE :</b>	<b>112W</b>
<b>DEFROST WATTAGE :</b>	<b>275W</b>
<b>FULL LOAD AMPS :</b>	<b>0.5A</b>

## **Top Mount : Deluxe models: -----**

This refrigerator is managed by an Electronic System, mainly consisting of the components:

- Electronic Control Board (Nilgiri- Dlx (BEE))
- POT (Potentiometer) in case of Dlx (BEE) models only.
- Temperature Sensors {refrigerator, Defrost & POT(Dlx)}
- Compressor ( With Run capacitor)
- Freezer Fan Motor (AC)
- Defrost Heater ( Integrated Al tube 245W)
- Door Open Sensing

These components are described as shown below.

### **– Electronic Control**

The complete operation of this product is done by the Electronic Control, Functions of this models are fully controlled by the Micro-controller IC which executes the functions according to the needs, turning the components On or Off through received/managed signals, such as:

- Compressor On/Off
- Defrost Heater On/Off
- Temp setting in refrigerator Compartment, through received signals by the POT along with the RC & FC Sensors Temp. Feedback.
- Door open sensing / Alarm
- Among many other functions controlled by its software.

The Electronic Control is located at the rear of the refrigerator, next to the cabinet and besides the Compressor, inside a plastic box. Cables going inside the product, using connectors that do not permit an assembling failure do its connection to the mains and its components.

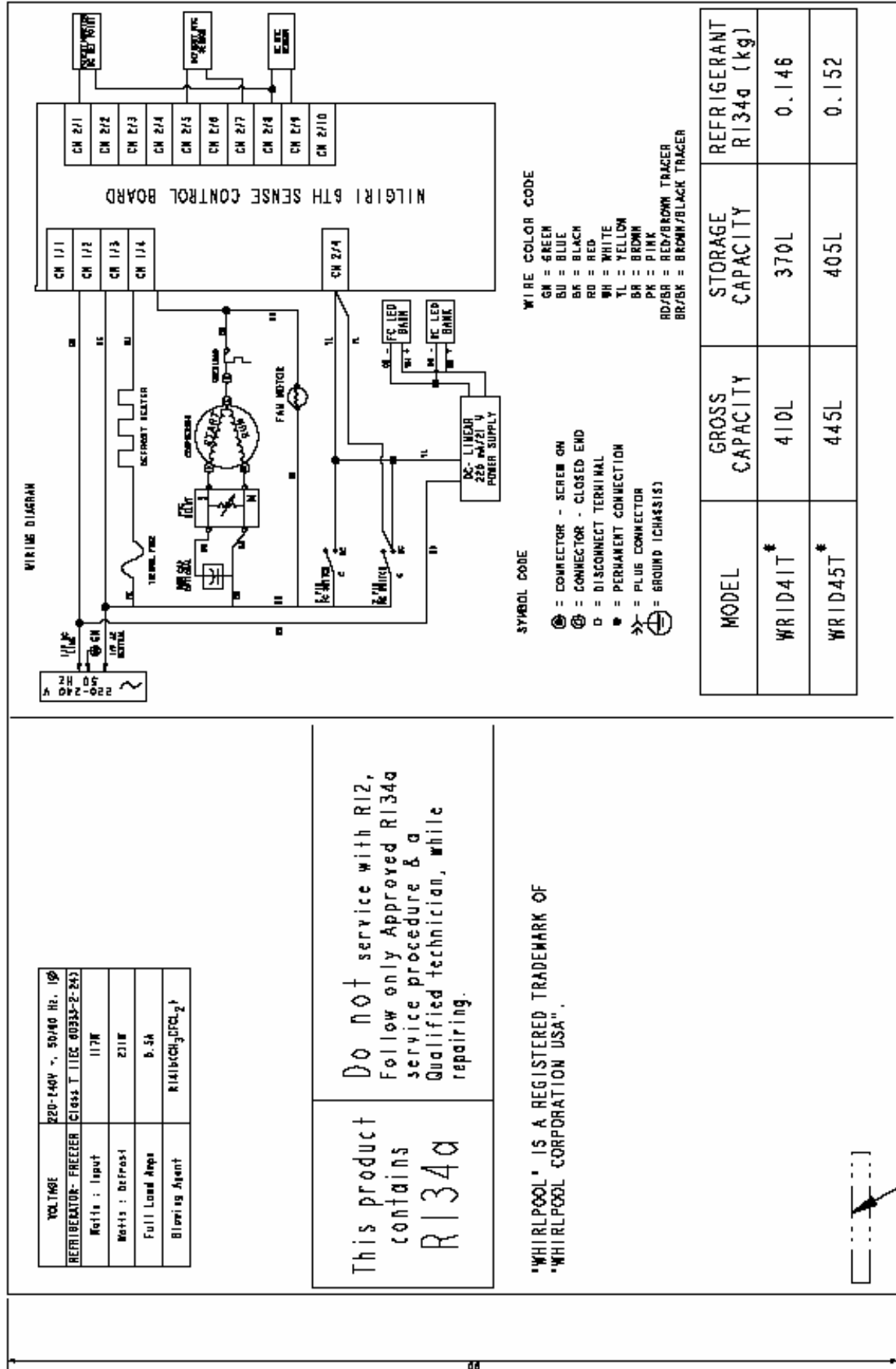


**Note: For more details see Wiring Diagram.**



# Wiring Diagram : Top Mount – No Frost Dlx

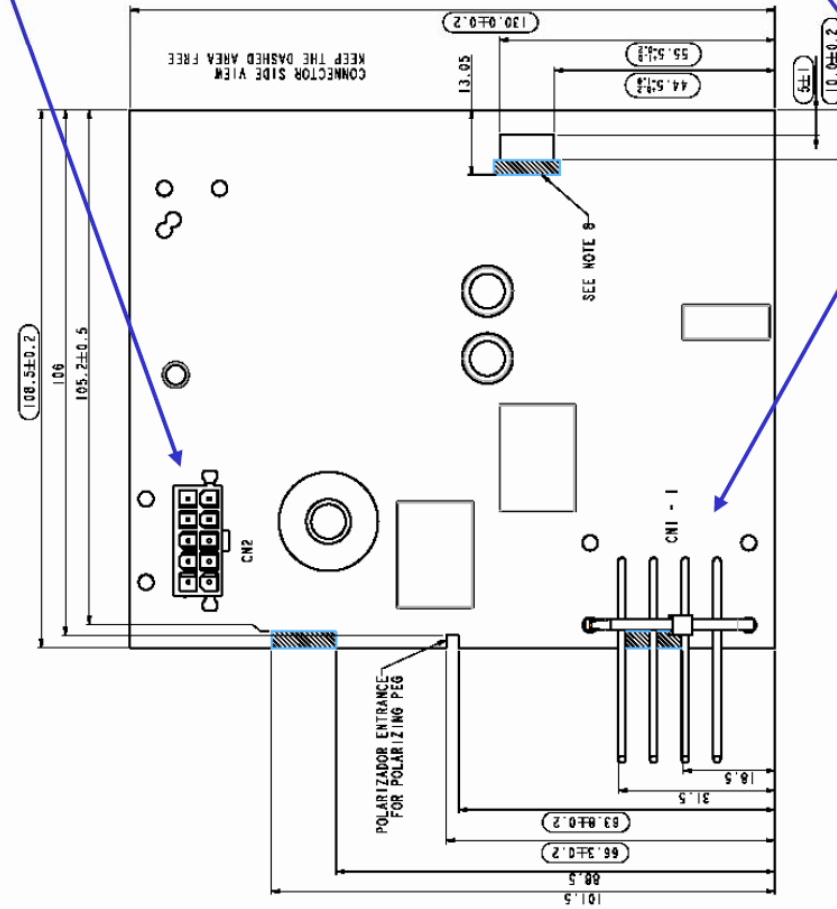
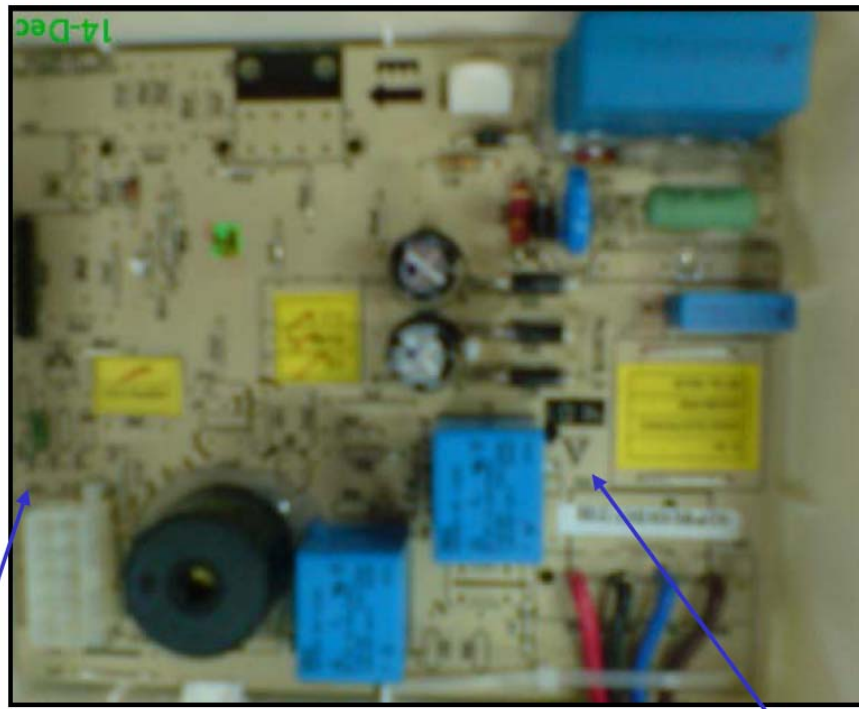
140



## Identification of connectors on the Kirchoff board

Identification text (CN2) for connector 2 as mentioned on the

board



Identification text (CN1) for connector 1 as mentioned on the

board

### Refrigerant Charging Qty:

Model	Refrigerant R134a(gms)
410L Dlx	146
445L Dlx	146

CN1 (Connector 1) – Compressor, Heater and Power Cord

CN2 (Connector 2) – RC/FC LED, Load component and Temperature Sensors/POT

CN3 (Connector 3) – User Interface board (Used only for Elite models)



#### WARNING

##### Electrostatic Discharge Risk

Do not touch the Circuit components, because you can damage fuse/burned or weaken the board.

Always handle the Boards by the sides/plastic holder.

Spare parts/stock boards if outside the BOX must be kept in anti-static packaging.

	 <b>WARNING</b>	AVOID ELECTRICAL SHOCK. Follow recognized safety procedures and servicing instructions.
	<ul style="list-style-type: none"><li>*Disconnect power before servicing.</li><li>*If refrigerant leak is suspected around compressor terminal, relieve all pressure from system, keeping terminal cover in place.</li><li>*Replace all panels before operating, failure to do so can result in death or electrical shock.</li></ul>	<ul style="list-style-type: none"><li>*To avoid electrical shock hazard, this product must be grounded. Any ground wire disconnected during service must be reconnected.</li><li>*Do not reconnect unit to electrical supply until compressor terminal cover is securely in place.</li></ul>

## Assembly & Disassembly Procedure

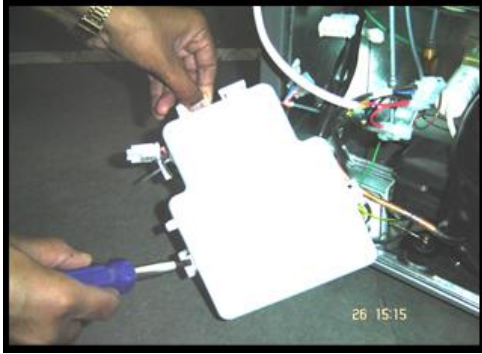
### Disassembly Procedure:

#### A) Core Board Box

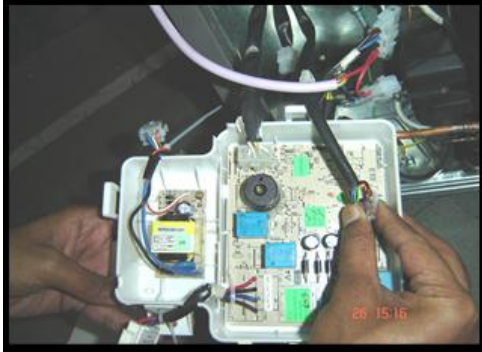
1. Disconnect the Power cord from the Mains supply.
2. Remove the Mounting Screws.



### 3. Release the Cover tabs.



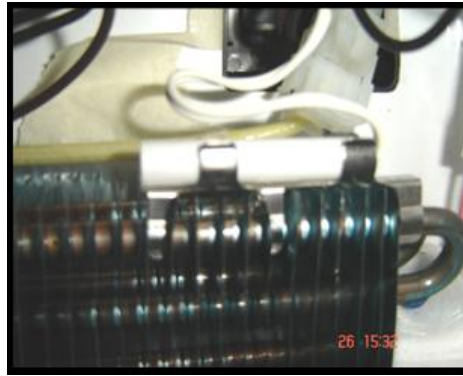
### 4. Releasing the On board Connectors.



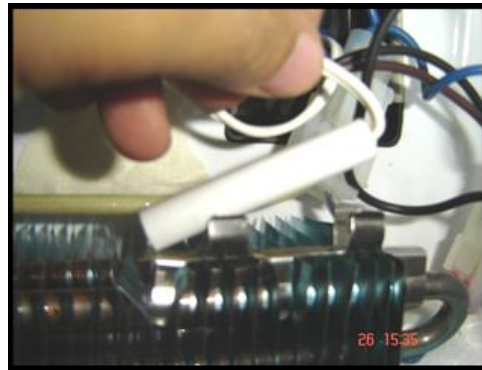
### IMPORTANT

- # Be careful when using the Multimeter measuring probes, as they may damage the Connector terminals.
- # Be careful when removing the electronic board connectors, as they are latched. Remove them at right angles with no side movements

## 1. Defrost Sensor mounted on the Evaporator tube.



## 2. Removing/Replacing the Defrost Sensor



### Defrost Temperature Sensor – NTC

It's located at the freezer compartment, along with the Evaporator. The Defrost Sensor is responsible for sending signals to the electronic control, which will command the ending of the defrost, turning off the Defrost Heater,

This does a similar function to the well-known Defrost Bimetal

### IMPORTANT

**Never** change the position of such Sensors, as their functional characteristics can be modified. This sensor also informs the temperature conditions of the Evaporator when the product is activated (plugged in electricity) indicating to the Electronic Control the correct start up to be followed, for instance, manufacturing ,default or the previous programming done by the user, compressor delay , etc.

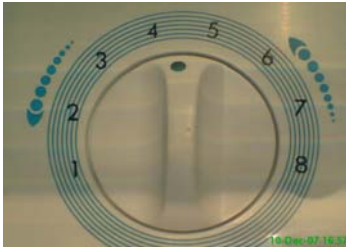
### WARNING

These Sensors (refrigerator & Defrost) **Are Compatible with Each Other**, but **Are not compatible** with the Sensors of the previous Model (SYMPHONY)

**NEVER** replace these Sensors with the Sensor Kit used in the Symphony model.

In the need of replacing one of the Temperature Sensors, Replace the full RC/FC Sensor **harness (In these model FC Sensor harness is replaceable)**. Directly replace the relevant RC or FC Sensor harness. Do not try to repair the harness for the faulty Thermistor.

## Dlx models:-



### Temperature Control

To control the temperature of your refrigerator, turn the knob according to your requirement. This control is provided inside the refrigerator section. Turn knob to the left to reduce the cooling and to the right to increase the cooling. It is preset to the middle position.

Position	Usage Condition
1 - 2	During Winters or when there is not much food stored in the refrigerator
3 - 4	This is the default setting. Can be used under normal usage conditions
5 - 6	During Summer or when there is a lot of food stored in the refrigerator
7 - 8	During extreme summer or when you want very strong cooling

### Adaptive Defrost Control

The defrost cycle shall be started after the Defrost timer has expired. According to the following defrost procedure: Defrost must be executed every time one of the following event occurs:

1. After 8 hours (+/-10 minutes) of compressor running, calculated considering just the thermostat function.
2. When the compressor stops (in thermostatic mode) and a time period of 20 min (+/-1 minute) is allowed to complete the time to defrost.
3. If the door open time > 10 min, within first 5 hrs of cumulative compressor run time, defrost is initiated at 5hrs.
4. If door open time > 10 min between 5 to 8 hours of cumulative compressor run time, defrost will happen instantaneously.
5. If the door open time < 10 min or If there is at least one door opening up to 8 hrs of compressor running then defrost time is as per point 1.
6. If there is no door opening up to 8 hrs of compressor running then defrost time will be 18hrs
7. If there is no door opening for 8 hrs, & there is door opening between 8 to 18 hrs of compressor running, defrost will take place immediately.

The 5<sup>th</sup>, 8<sup>th</sup> or 18<sup>th</sup> hr of compressor running (defrost timer) consist of the sum of all the compressor's ON time, independently of the number of compressor cycles and how many time the compressor was ON.

## Door Open Sensing Alarm

Door open sensing alarm activates or gives beep if the door is kept open for more than 2 min.  
During the Door opening beep alarm if the door is closed then the alarm gets deactivated.

## Alarm Codes, Priority, Retention and Trigger

### **Alarm code for Deluxe models: -**

- In event of any Fault occurring for RC/FC or Pot sensors then immediately after 2 min's of the fault occurrence a Buzzer Beep for 1 Sec will be activated indicating the Sensor fault condition in Dlx models only.
- To understand where there is any Sensor or Pot failure indication in the Dlx model, Service Person should Switch On the Product & wait for the any buzzer Beep if any after 5 sec of Product switch ON. This will indicate the Error status in the Dlx models.

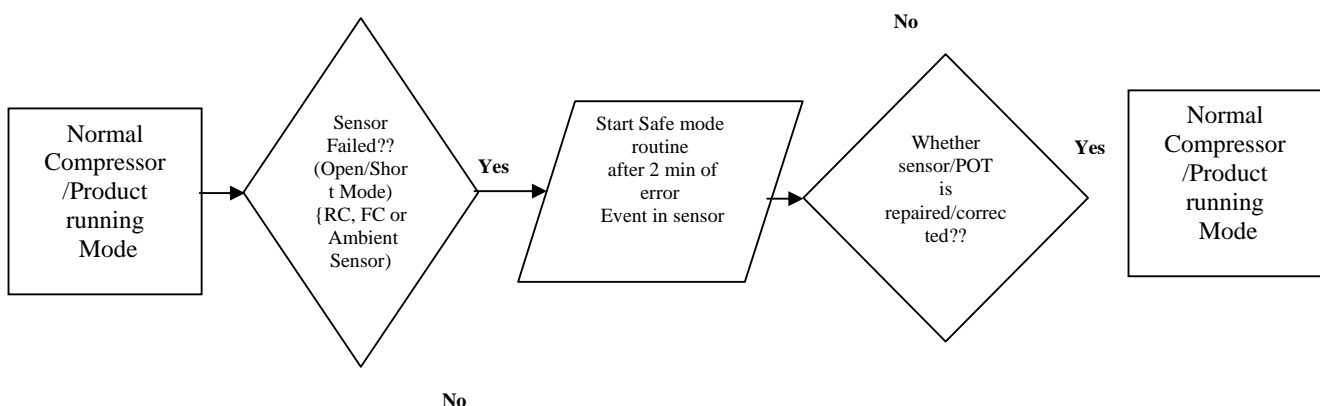
### **Check Point:**

- Poor contact between terminals/ connectors – CN2 (Temperature Sensors) at Electronic Control (main board)
- The Sensor/Pot itself that might be open or in short circuit and has to be replaced (see Sensor/Pot replacement).

## Safe mode routine

During Constant fault condition, the Electronic Control will assume a safety routine, as in normal cycle, trying to keep food conservation, however will work as follows:

- Compressor and Fan Motors will be on for 25 minutes and then will turn off for 20 minutes.
- Interval set between defrosts will be fixed in every 5 hours of the Compressor activity
- Every defrost time is fixed for 20 minutes. No dependency on defrost sensor for Cut Off temp of 15°C





## **Note: -**

- There is no Service routine provided in this model.
- In Dlx models Diagnosis of the Error / Sensor / Pot failure is not of continuous nature. Service person needs to restart the Product to listen to the Buzzer Beep for error indications if any.
- To check whether Heater is working fine or not, service person can use the Power up initialization function of the model, where Product need to be switched Off & need to be ensured that the temp at the FC sensor is  $>0^{\circ}\text{C}$ , then after making the product ON product goes into the Power up initialization mode where after product switch ON, heater gets activated for the first 5 seconds & then it goes to the compressor mode. Service person can make the use of this 5 seconds where by putting the Tong tester one can easily identify the healthy/faulty condition of the heater through the driving current displayed on the tong tester it self at the Electronic core board box location without opening the FC Plenum.
- **In case of any Aluminum foil wrapping found over the Wiring harness either in FC compartment, RC Compartment or in the Compressor deck area, the same Al foil should be carefully replaces in same fashion after servicing**
- In case of any detailed technical information please check with the Dlx technical specification.

### **Board Level Diagnostics for :**

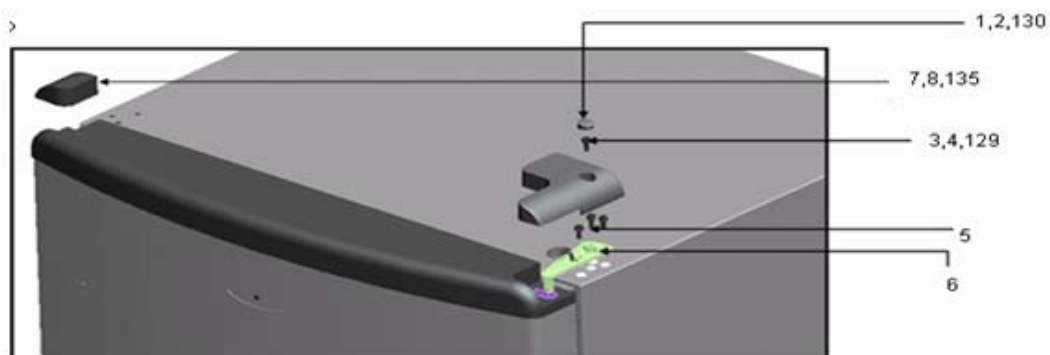
- \* Thermistor Failure FC/RC
- \* Potentiometer Failure
- 1 First Turn Off the Product & disconnect the Plug.
- 2 Remove the Control Board from Box.
- 3 Disconnect the 10-Pin connector from Board.
- 4 For Thermistor Failure FC/RC
  - \* Check resistance on pin no. 8 & 9 of CN2 ( 10 pin connec) for RC Thermistor.
  - \* Check resistance on pin no. 5 & 7 of CN2 ( 10 pin connec) for FC Thermistor.
  - \* IF thermistor is open then the resistance is zero.
  - \* IF thermistor is short then the resistance is above 22 KOhms
  - \* IF resistance lie between 0-22 KOhms the themistor is OK.
- 5 Potentiometer Failure
  - \* Check resistance on pin no. 1 & 8 of CN2 ( 10 pin connec) for Potentiometer.
  - \* It should lie between 0 to 22 K ohms



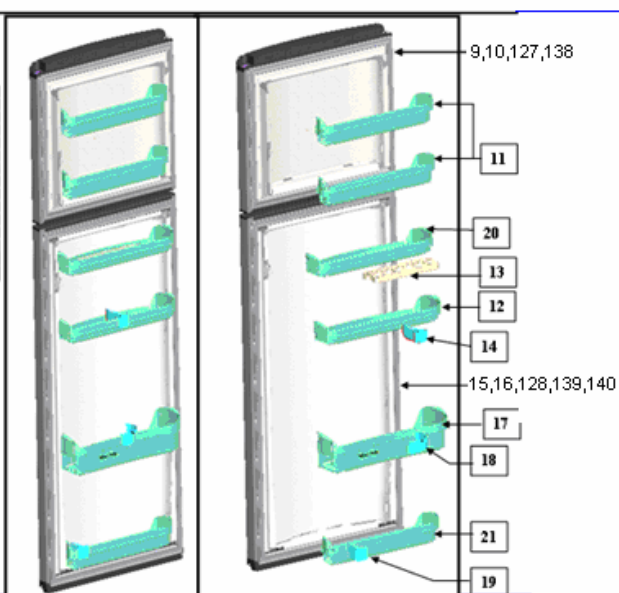
## EXPLODED VIEWS

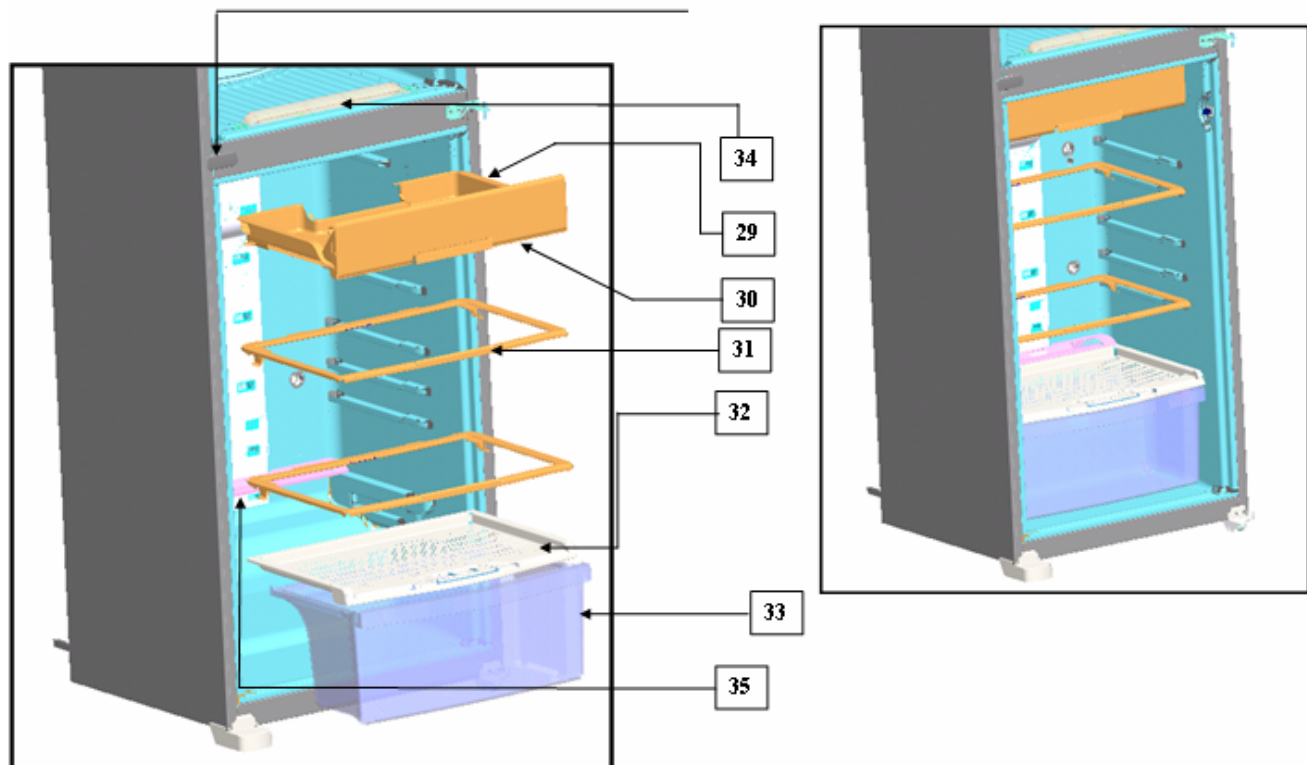
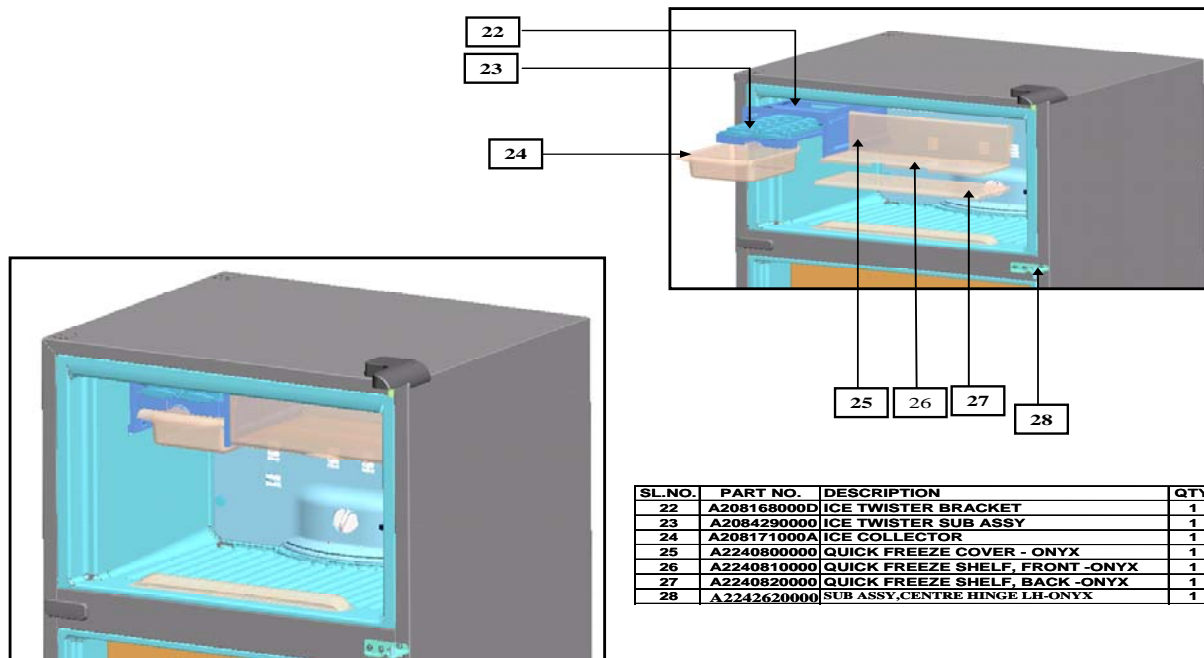


1	A224278200A	CAP, TOP HINGE COVER WHITE- ONYX
2	A224278B50A	CAP, TOP HINGE COVER GRAPHITE - ONYX
3	A2240872000	TOP HINGE,COVER,RH-ONYX ,WHITE
4	A224087B500	TOP HINGE COVER GRAPHITE - ONYX
5	A2243510000	M 5.5 X 1.8 PHILIPS HEAD SELF TAPPING SCREW
6	A224503000A	SUB ASSY,TOP HINGE (SHEETMETAL) - ONYX
7	A2242332000	COMPIMENT END CAP, FC TOP,LH-ONYX ,WHITE
8	A224233B500	COMPIMENT END CAP TOP GRAPHITE LH-ONYX
129	A224087A700	TOP HINGE COVER BLACK - ONYX
130	A224278A70A	CAP, TOP HINGE COVER BLACK - ONYX
135	A224233A700	COMPIMENT END CAP, FC TOP,BLACK LH-ONYX



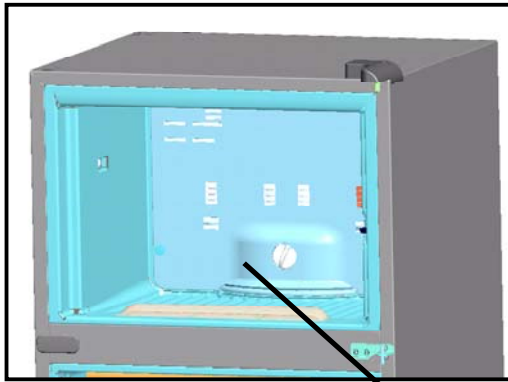
9	A2242155500	DOOR FC ASSY,LH,AUS,METALON -ONYX,DLX
10	A2242152000	DOOR FC ASSY,LH,AUS,WHITE -ONYX,DLX
11	A2240350000	FREEZER BIN - ONYX
12	A2243700000	MULTI USE BIN - ONYX
13	A2240510000	EGG TRAY - ONYX
14	A224059000A	PACKET SEPARATOR - ONYX
15	A2242152000	FOAMED RC DOOR AUST DLX WHITE LH - ONYX
16	A2242155500	FOAMED RC DOOR AUST DLX METALON LH-ONYX
17	A2240650000	BOTTLE SEPARATOR - ONYX
18	A2240370000	BOTTLE BIN - ONYX
19	A224357000A	BIN SEPARATOR- ONYX
20	A224036000A	SHALLOW BIN - ONYX
21	A2243690000	FREEZER BIN - RC ONYX
127	A224215B700	FOAMED FC DOOR AUST DLX BLACK HAIR - ONYX
128	A224474B700	FOAMED RC DOOR AUST DLX BLACK HAIR - ONYX
138	A224215K300	FOAMED FC DOOR AUST DLX SLIKE LH-ONYX
139	A224474K300	FOAMED RC DOOR 410L DLX AUST SLIKE LH OP
140	A224445K300	FOAMED RC DOOR 450L DLX AUST SLIKE LH OP



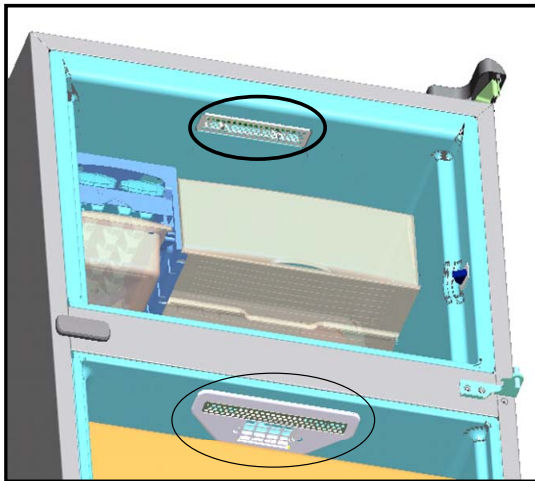
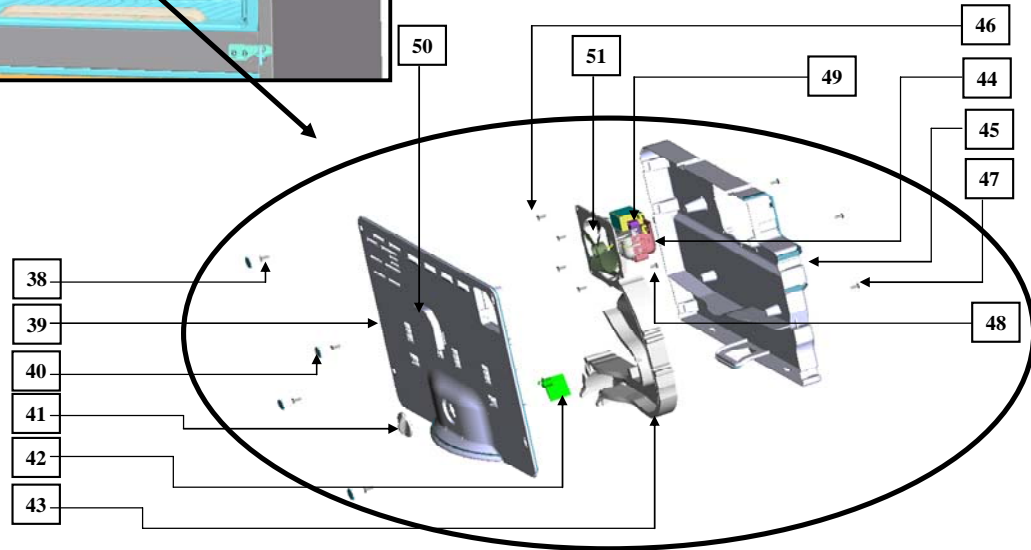


SL.NO.	PART NO.	DESCRIPTION	QTY.
29	A2240390000	CHILLER - ONYX	1
30	A2240400000	CHILLER COVER - ONYX	1
31	A224041000B	GLASS SHELF	2

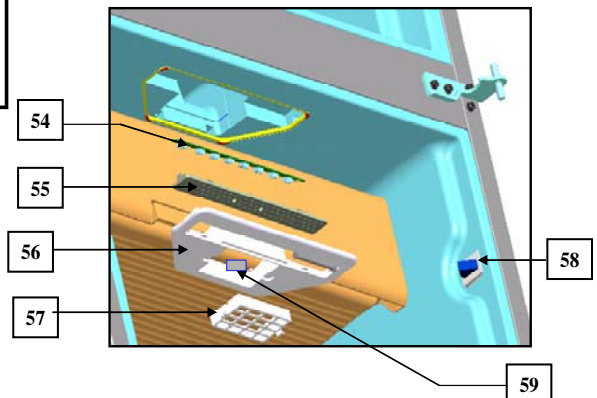
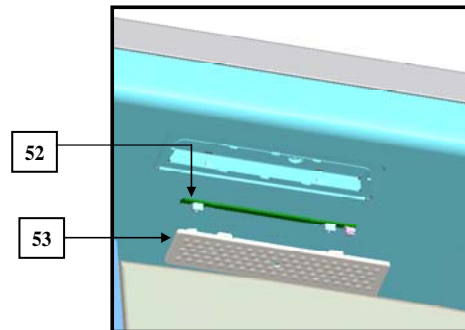
SL.NO.	PART NO.	DESCRIPTION	QTY.
32	A2240700000	SUB ASSY,CRISPER COVER- ONYX	1
33	A224044000A	VEG CRISPER	1
34	A224133000A	FC GRILL - ONYX	1
35	A2242230000	COMPLEMENT,VEG CRISPER COVER- ONYX	1
36	A2241102000	COVER,CENTRE RAIL NON HINGE WHITE - ONYX	1
37	A2241105500	COVER,CENTRE RAIL NON HINGE METALON - ONYX	1
36,37,131	A224110A700	COVER,CENTRE RAIL NON HINGE BLACK -	1



SL.NO.	PART NO.	DESCRIPTION	QTY.
38	A2243490000	M 4.8X 13 SELF TAPPING SCREW(LINER TO PLENUM)	4
39	A2242690000	SUB ASSY PLENUM FRONT -ONYX	1
40	A2241810000	PLENUM CAP-ONYX	4
41	A201495000C	KNOB - FREEZER CONTROL	1
42	A2244120000	FC DAMPER , AUS-ONYX	1
43	A2240730000	COMPLEMENT EPS, PLENUM BACK- ONYX	1
44	A2221170000	FAN MOTOR MI-(DUO)	1
45	A224268000A	SUB ASSY PLENUM BACK -ONYX	1
46	A201356000B	SCREW FOR FIXING BRACKET AND HOUSING	4
47	A2243500000	M 4.2X 16 SELF TAPPING SCREW( FRONT TO BACK)	4
48	A2223740000	SCREW FOR FIXING FAN MOTOR	1
49	A2222710000	SOUND DAMPER	1
50	A2242540000	COMPLEMENT PLENUM FRONT-ONYX	1
51	A2221180000	FAN BLADE 110MM, DUO	1

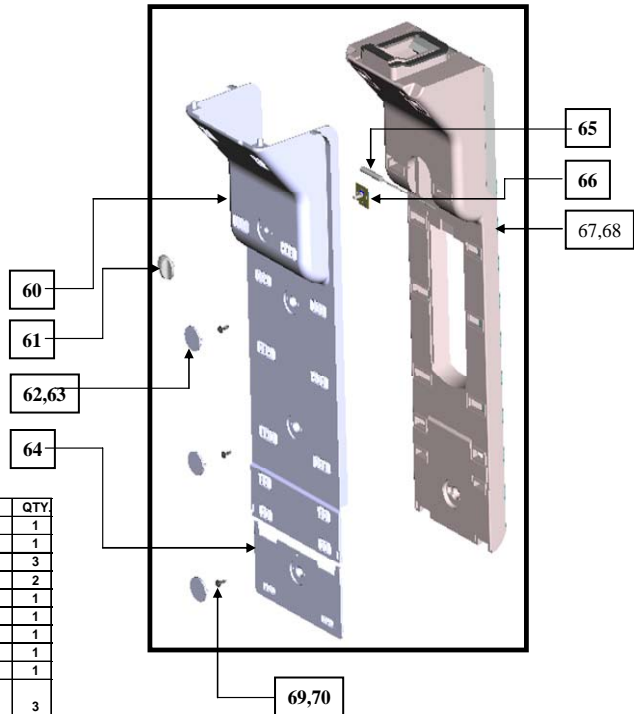


SL.NO.	PART NO.	DESCRIPTION	QTY.
52	A2241650000	LED PCB, FC-ONYX	1
53	A224153000A	LENS, FC LED-ONYX	1
54	A2241010000	RC LED PCB-ONYX	1
55	A2241080000	LENS, RC LED-ONYX	1
56	A224102000A	HOUSING RC LED, DEODERISER-ONYX	1
57	A2242770000	COVER - DEODERISER-ONYX	1
58	A2253030000	SWITCH ROCKER ARM, NC- ESBEE W welded	2
59	A2087000000	DEODERISOR	1

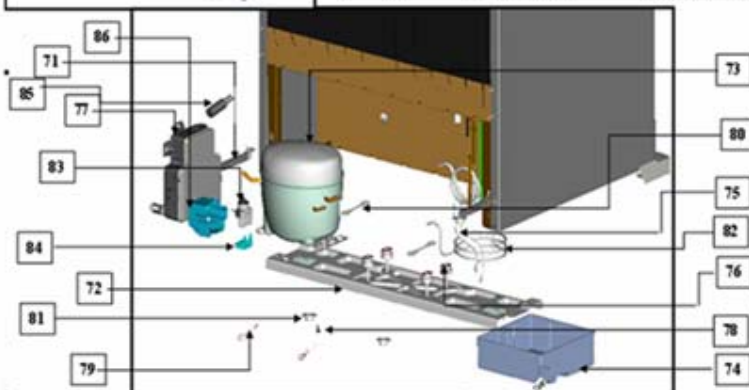
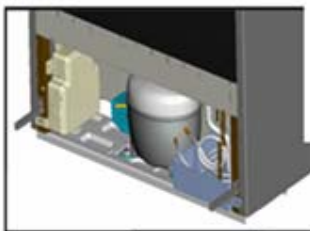


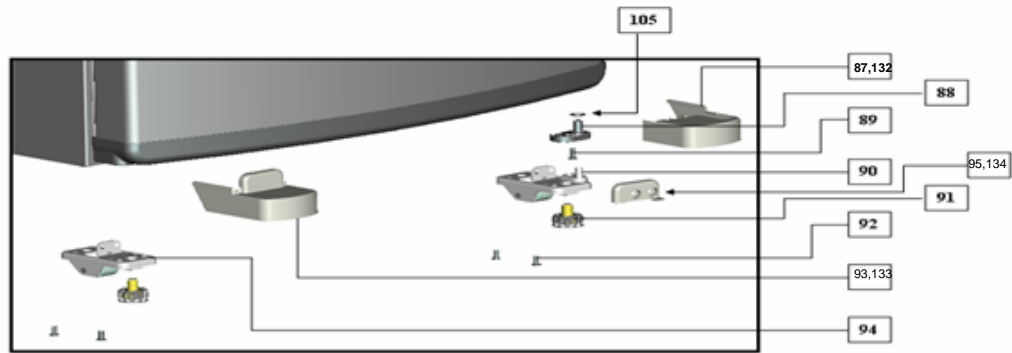


SL.NO	PART NO.	DESCRIPTION	QTY
60	A224062000C	COVER AIR DIFFUSER - ONYX	1
61	A201135000E	THERMOSTAT KNOB	1
62	A224042000A	CAP, COVER AIR DIFFUSER SCREW-ONYX,445L	3
63	A224042000A	CAP, COVER AIR DIFFUSER SCREW-ONYX,410L	2
64	A224097000A	EXTENSION COVER AIR DIFFUSER-ONYX	1
65	A224052000A	HARNESS RC, DLX-ONYX	1
66	A222248000F	POT PCB ASSEMBLY	1
67	A224163000A	DIFFUSER EPS SUB ASSY,450L - ONYX	1
68	A224328000A	DIFFUSER EPS SUB ASSY,410L - ONYX	1
69	A2250430000	SCREW FOR FIXING COVER AIR DIFFUSER ASSY TO LINER , 450L	3
70	A2250430000	SCREW FOR FIXING COVER AIR DIFFUSER ASSY TO LINER , 410L	2

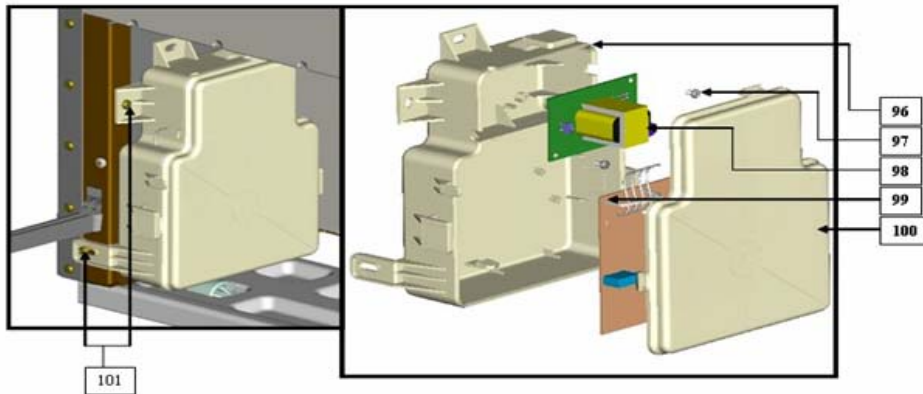
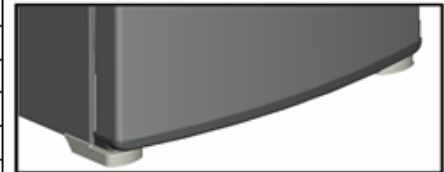


71	A224167000A	CABINET SPACER-ONYX
72	A224142000E	COMPRESSOR BASE PLATE ASSEMBLY-ONYX
73	A2253880000	COMPRESSOR BMY65HLC (EMBRACCO)_(RELAY,OLP,CAPA
74	A2243930000	SUB ASSY DEFROST WATER TRAY-ONYX
75	A224419000A	ASSY DRAIN TUBE 450 L - ONYX
76	A2252540000	GROMMET - COMPRESSOR GNF
77	A224481000A	Core Board Box Assembly <del>Assy Dlx</del> - Onyx
78	A201358000E	EARTHING SCREW MM.2
79	A2243820000	SPLIT PIN-COMPRESSOR MOUNTING-ONYX
80	A224380000B	SHIM COMPRESSOR MOUNTING
81	A211638380A	COMPRESSOR SLEEVE-GNF
82	A224291000B	DISCHARGE TUBE
83	A2253180000	PTC RELAY , EGZS80HLC
84	A2253190000	MOTOR PROTECTOR,EGZS80HLC
85	A2253200000	RUNNING CAPACITOR EGZS80HLC
86	A2253210000	PROTECTOR COVER , EGZS80HLC





87	A224198200A	SOCKLE, HINGE SIDE AUS, LH OPEN-ONYX, METALON
88	A224050000B	STOP, DOOR RH-ONYX
89	A2241310000	M4.8 X 1.6 SCRBW FOR FIXING RC DOOR STOPPER, 410L/460L
90	A224109000A	SUB ASSY, BOTTOM HINGE, HINGE SIDE, LH OPEN-ONYX
91	A224127000A	LEVELLER ASSEMBLY-ONYX
92	A2243510000	M 5.5 X 1.8 SELF TAP SCRBW
93	A224199B50A	SOCKLE, BOTTOM HINGE GRAPHITE, LH - ONYX
93	A224198B50A	SOCKLE, BOTTOM HINGE GRAPHITE, RH - ONYX
94	A2242710000	SUB ASSY, BOTTOM HINGE, NON HINGE SIDE, LH OPEN-ONYX
95	A224234200A	SOCKLE CAP, ONYX, WHITE
105	A2243610000	SS WASHER DOOR STOPPER-ONYX
132	A224199A70A	SOCKLE, BOTTOM HINGE BLACK, LH - ONYX
133	A224198A70A	SOCKLE, BOTTOM HINGE BLACK, RH - ONYX
134	A224234A70A	SOCKLE CAP BLACK- ONYX



SL NO.	PART NO.	DESCRIPTION	QTY.
96	A2290690000	CONTROL BOX	1
97	A2290890000	SCREW - DC POWER SUPPLY	2
98	A224209000C	DC POWER SUPPLY-ONYX	1
99	A2244530000	CORE BOARD, DLX-ONYX-AUS	1
100	A2290700000	CORE BOARD BOX COVER	1
101	A2243480000	M4.8 X 0.8 SELF TAPPING SCREW (CONTROL BOARD TO WRAPPER)	2



## Compressor Information



EMY65HLC Compressor

New suction compliment

137

Part No.A229483000

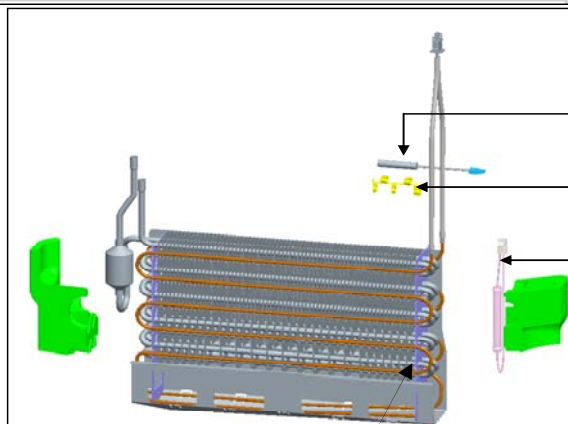
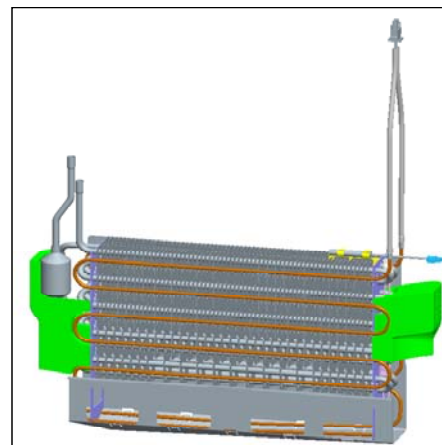
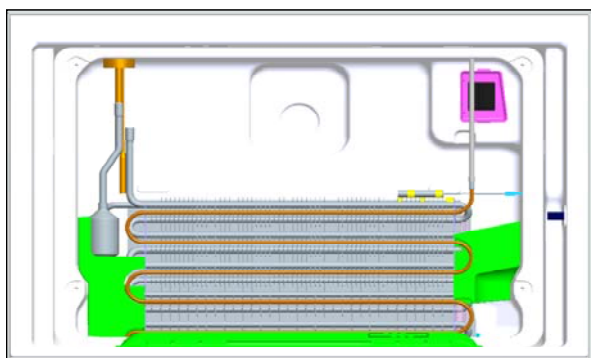


EGZS80HLC Compressor

Old suction  
Compliment

**NOTE** –To replace EMY65HLC Compressor in place of EGZ80HLC use reverse port suction compliment .

**Spare part No. - 137, Whirlpool Part No.A2294830000**



- 104
- 103
- 102

SL.NO	PART NO.	DESCRIPTION	QTY
102	A2117510000	THERMAL FUSE WITH CONNECTOR	1
103	A2290920000	FC THERMISTOR CLIP	1
104	A2242050000	HARNESS, FC THERMISTOR	1

136

**Part No: - A2241780000**  
**INTEGRATED DEFROST HEATER,KENMORE-ONYX**

## PART LIST FOR ONYX-AUSTRALIA

Sr no	SERVICABLE PART-ONYX-AUSTRALIA					
	WOIL PART NUMBER	WOIL DRAWING NUMBER	DESCRIPTION	COMMODITY	Quantity	
					410L	445L
1	A224278200A	A224278	CAP, TOP HINGE COVER WHITE- ONYX	PLASTIC	1.000 EA	1.000 EA
2	A224278B50A	A224278	CAP, TOP HINGE COVER GRAPHITE - ONYX	PLASTIC	1.000 EA	1.000 EA
3	A2240872000	A224087	TOP HINGE,COVER,RH-ONYX ,WHITE	PLASTIC	1.000 EA	1.000 EA
4	A224087B500	A224087	TOP HINGE COVER GRAPHITE - ONYX	PLASTIC	1.000 EA	1.000 EA
5	A2243510000	A224351	M 5.5 X 1.8 PHILIPS HEAD SELF TAPPING SCREW (BOTTOM HINGE,CENTRE HINGE,TOP HINGE,TOP HINGE COVER AND WRAPPER)	SCREW	20.000 EA	20.000 EA
6	A224503000A	A224503	SUB ASSY,TOP HINGE (SHEETMETAL) - ONYX	ASSY	1.000 EA	1.000 EA
7	A2242332000	A224233	COMPIMENT END CAP, FC TOP,LH-ONYX ,WHITE	PLASTIC	1.000 EA	1.000 EA
8	A224233B500	A224233	COMPIMENT END CAP TOP GRAPHITE LH-ONYX	PLASTIC	1.000 EA	1.000 EA
9	A2242155500	A224215	DOOR FC ASSY,LH,AUS,METALON -ONYX,DLX	FOAM DOOR	1.000 EA	1.000 EA
10	A2242152000	A224215	DOOR FC ASSY,LH,AUS,WHITE -ONYX,DLX	FOAM DOOR	1.000 EA	1.000 EA
11	A2240350000	A224035	FREEZER BIN - ONYX	PLASTIC	2.000 EA	2.000 EA
12	A2243700000	A224370	MULTI USE BIN - ONYX	PLASTIC	1.000 EA	1.000 EA
13	A2240510000	A224051	EGG TRAY - ONYX	PLASTIC	1.000 EA	1.000 EA
14	A224059000A	A224059	PACKET SEPARATOR - ONYX	PLASTIC	1.000 EA	1.000 EA
15	A2242152000	A224212	FOAMED FC DOOR AUST DLX WHITE LH - ONYX	FOAM DOOR	1.000 EA	1.000 EA
16	A2242155500	A224212	FOAMED FC DOOR AUST DLX METALON LH - ONYX	FOAM DOOR	1.000 EA	1.000 EA
17	A2240650000	A224065	BOTTLE SEPARATOR - ONYX	PLASTIC	1.000 EA	1.000 EA
18	A2240370000	A224037	BOTTLE BIN - ONYX	PLASTIC	1.000 EA	1.000 EA
19	A224357000A	A224357	BIN SEPARATOR- ONYX	PLASTIC	1.000 EA	1.000 EA
20	A224036000A	A224036	SHALLOW BIN - ONYX	PLASTIC	1.000 EA	1.000 EA
21	A2243690000	A224369	FREEZER BIN - RC ONYX	PLASTIC	1.000 EA	1.000 EA
22	A208168000D	A208168	ICE TWISTER - BRACKET	PLASTIC	1.000 EA	1.000 EA
23	A2084290000	A208429	ICE TWISTER SUB ASSY	PLASTIC	1.000 EA	1.000 EA
24	A208171000A	A208171	ICE COLLECTOR	PLASTIC	1.000 EA	1.000 EA
25	A2240800000	A224080	QUICK FREEZE COVER-ONYX	PLASTIC	1.000 EA	1.000 EA
26	A2240810000	A224081	QUICK FREEZE SHELF, FRONT -ONYX	PLASTIC	1.000 EA	1.000 EA
27	A224082000A	A224082	QUICK FREEZE SHELF, BACK -ONYX	PLASTIC	1.000 EA	1.000 EA
28	A224144000A	A224144	CENTRE HINGE ASSY, RH - ONYX	ASSY	1.000 EA	1.000 EA
29	A2240390000	A224039	CHILLER- ONYX	PLASTIC	1.000 EA	1.000 EA
30	A224040000A	A224040	CHILLER COVER - ONYX	PLASTIC	1.000 EA	1.000 EA
31	A224041000B	A224041	GLASS SHELF	PLASTIC	2.000 EA	2.000 EA
32	A2240700000	A224070	SUB ASSY, CRISPER COVER-ONYX	ASSY	1.000 EA	1.000 EA



33	A224044000A	A224044	VEG CRISPER	PLASTIC	1.000 EA	1.000 EA
34	A224133000A	A224133	FC GRILL-ONYX	PLASTIC	1.000 EA	1.000 EA
35	A2240700000	A224223	SUB ASSY, CRISPER COVER-ONYX	PLASTIC	1.000 EA	1.000 EA
36	A224110200A	A224110	COVER,CENTRE RAIL NON HINGE WHITE - ONYX	PLASTIC	1.000 EA	1.000 EA
37	A224110B50A	A224110	COVER,CENTRE RAIL NON HINGE GRAPHIT-ONYX	PLASTIC	1.000 EA	1.000 EA
38	A2243490000	A224349	M 4.8X 13 PAN HEAD SELF TAPPING SCREW(LINER TO PLENUM)	SCREW	4.000 EA	1.000 EA
39	A224269000A	A224269	SUB ASSY PLENUM FRONT -ONYX	ASSY	1.000 EA	4.000 EA
40	A2241810000	A224181	PLENUM CAP - ONYX	PLASTIC	4.000 EA	1.000 EA
41	A201495000C	A201495	KNOB -FREEZER CONTROL	PLASTIC	1.000 EA	4.000 EA
43	A2240730000	A224073	COMPLEMENT EPS, PLANUM BACK - ONYX	ELEC	1.000 EA	1.000 EA
44	A2221170000	A222117	FAN MOTOR MI-(DUO)	ELEC	1.000 EA	1.000 EA
45	A224268000B	A224268	SUB ASSY PLENUM BACK -ONYX	ASSY	1.000 EA	1.000 EA
46	A201356000B	A201356	SCREW FOR FIXING BRACKET AND HOUSING	SCREW	4.000 EA	4.000 EA
47	A2243500000	A222350	M 4.2X 16 SELF TAPPING SCREW( FRONT TO BACK)	SCREW	4.000 EA	4.000 EA
48	A2223740000	A222374	SCREW FOR FIXING FAN MOTOR	SCREW	1.000 EA	1.000 EA
49	A2222710000	A222271	SOUND DAMPER	RUBBER	1.000 EA	1.000 EA
50	A2242540000	A224254	COMPLEMENT PLENUM FRONT-ONYX	ELEC	1.000 EA	1.000 EA
51	A2221180000	A222118	FAN BLADE, 110MM DUO	PLASTIC	1.000 EA	1.000 EA
52	A2241650000	A224165	LED PCB FC -ONYX	ELEC	1.000 EA	1.000 EA
53	A2241520000	A224153	HOUSING, FC LED - ONYX	PLASTIC	1.000 EA	1.000 EA
54	A2240990000	A224101	RC PCB LENS ASSY - ONYX	ELEC	1.000 EA	1.000 EA
55	A224104000A	A224108	FC PCB LENS ASSY - ONYX	PLASTIC	1.000 EA	1.000 EA
56	A2241020000	A224102	HOUSING RC LED, DEODERISER-ONYX	PLASTIC	1.000 EA	1.000 EA
57	A2242770000	A224277	COVER - DEODERISER-ONYX	PLASTIC	1.000 EA	1.000 EA
58	A2253030000	A225303	SWITCH ROCKER ARM, NC- ESBE W welded	ELEC	2.000 EA	2.000 EA
59	A2087000000	A208700	DEODERISOR	ABSORPTION PACKETZ	1.000 EA	1.000 EA
60	A2243860000	A224386	COVER AIR DIFFUSER - ONYX	PLASTIC	1.000 EA	1.000 EA
61	A201135000E	A201135	THERMOSTAT KNOB	PLASTIC	1.000 EA	1.000 EA
62	A224042000A	A224042	CAP, COVER AIR DIFFUSER SCREW-ONYX, 445L	PLASTIC	—	3.000 EA
63	A224042000A	A224042	CAP, COVER AIR DIFFUSER SCREW-ONYX, 410L	PLASTIC	2.000 EA	—
64	A224097000A	A224097	EXTENSION COVER AIR DIFFUSER-ONYX	PLASTIC	1.000 EA	1.000 EA
65	A224052000B	A224052	HARNESS-RC,DLX-ONYX	ASSY	1.000 EA	1.000 EA
66	A222248000A	A222248	POT PCB ASSEMBLY	ELEC	1.000 EA	1.000 EA
67	A224163000B	A224163	DIFFUSOR EPS SUB ASSY, 450L-ONYX	EPS	1.000 EA	1.000 EA
68	A2243280000	A224328	DIFFUSOR EPS SUB ASSY, 410L-ONYX	EPS	1.000 EA	1.000 EA
69	A225043000A	A225043	SCREW FOR FIXING COVER AIR DIFFUSER ASSY TO LINER,450L	SCREW	—	3.000 EA
70	A225043000A	A225043	SCREW FOR FIXING COVER AIR DIFFUSER ASSY TO LINER,410L	SCREW	2.000 EA	—
71	A224167000A	A224167	CABINET SPACER-ONYX	PLASTIC	2.000 EA	2.000 EA
72	A224142000E	A224142	COMPRESSOR BASE PLATE ASSEMBLY-ONYX	ASSY	1.000 EA	1.000 EA

73	A2253880000	A225388	COMPRESSOR EMY65HLC (EMBRACCO)...(RELAY,OLP,CAPA		1.000 EA	1.000 EA
74	A2243930000	A224393	SUB ASSY DEFROST WATER TRAY-ONYX	PLASTIC	1.000 EA	1.000 EA
75	A224419000A	A224419	ASSY DRAIN TUBE 450 L - ONYX	PLASTIC	1.000 EA	1.000 EA
76	A2252540000	A225254	GROMMET - COMPRESSOR GNF	RUBBER	4.000EA	4.000EA
77	A224481000A	A224481	Core Board Box Assembly Aust Dlx - Onyx	ASSY	1.000 EA	1.000 EA
78	A201358000E	A201358	EARTHING SCREW M4.2	SCREW	1.000 EA	1.000 EA
79	A2243820000	A224382	SPLIT PIN-COMPRESSOR MOUNTING-ONYX	STEEL	4.000 EA	4.000 EA
80	A224380000B	A224380	SHIM COMPRESSOR MOUNTING	STEEL	2.000 EA	2.000 EA
81	A211638380A	A211638	COMPRESSOR SLEEVE-GNF	PLASTIC	4.000 EA	4.000 EA
82	A224291000B	A224291	DISCHARGE TUBE	COPPER TUBE	1.000 EA	1.000 EA
83	A2253180000	A225318	PTC RELAY , EGZS80HLC	ELEC	1.000EA	1.000EA
84	A2253190000	A225319	MOTOR PROTECTOR,EGZS80HLC	ELEC	1.000EA	1.000EA
85	A2253200000	A225320	RUNNING CAPACITOR EGZS80HLC	ELEC	1.000 EA	1.000 EA
86	A2253210000	A225321	PROTECTOR COVER , EGZS80HLC	PLASTIC	1.000EA	1.000EA
87	A224198200A	A224198	SOCKLE,HINGE SIDE AUS, LH OPEN- ONYX,WHITE	PLASTIC	1.000EA	1.000EA
87	A224198200A	A224198	SOCKLE,HINGE SIDE AUS, LH OPEN- ONYX,METALON	PLASTIC	1.000EA	1.000EA
88	A224050000B	A224050	STOP,DOOR RH-ONYX	PLASTIC	1.000 EA	1.000 EA
89	A2241310000	A224131	M4.8 X 1.6 SCREW FOR FIXING RC DOOR STOPPER,410L/450L	SCREW	1.000 EA	1.000 EA
90	A224109000A	A224109	SUB ASSY,BOTTOM HINGE,HINGE SIDE,LH OPEN -ONYX	ASSY	1.000 EA	1.000 EA
91	A224127000A	A224127	LEVELLER ASSEMBLY-ONYX	PLASTIC	2.000 EA	2.000 EA
92	A2243510000	A224351	M 5.5 X 1.8 SELF TAP SCREW (BOTTOM HINGE AND WRAPPER)	SCREW	4.000 EA	4.000 EA
93	A224199B50A	A224199	SOCKLE, BOTTOM HINGE GRAPHITE, LH - ONYX	PLASTIC	1.000 EA	1.000 EA
93	A224198B50A	A224199	SOCKLE, BOTTOM HINGE GRAPHITE, RH - ONYX	PLASTIC	1.000 EA	1.000 EA
94	A2242710000	A224271	SUB ASSY,BOTTOM HINGE,NON HINGE SIDE,LH OPEN-ONYX	PLASTIC	1.000 EA	1.000 EA
95	A224234200A	A224234	SOCKLE CAP, ONYX, WHITE	PLASTIC	1.000 EA	1.000 EA
95	A224234B50A	A224234	SOCKLE CAP, ONYX, METALON	PLASTIC	1.000 EA	1.000 EA
96	A2290690000	A229069	CONTROL BOX	PLASTIC	1.000 EA	1.000 EA
97	A229089000A	A229089	SCREW-DC POWER SUPPLY	SCREW	2.000 EA	2.000 EA
98	A2292090000	A229209	DC POWER SUPPLY- ONYX	ELEC	1.000 EA	1.000 EA
99	A224481000A	A224453	Core Board Box Assembly Aust Dlx - Onyx	ELEC	1.000 EA	1.000 EA
100	A2290700000	A229070	CORE BOARD BOX COVER	PLASTIC	1.000 EA	1.000 EA
101	A2243480000	A224348	M4.8 X 0.8 SELF TAPPING SCREW (CONTROL BOARD TO WRAPPER,DWT to WRAPPER)	SCREW	3.000 EA	3.000 EA
102	A2117510000	A211751	THERMAL FUSE WITH CONNECTOR	ELEC	1.000 EA	1.000 EA
103	A2290920000	A229092	FC THERMISTOR CLIP	STEEL	1.000 EA	1.000 EA

104	A224205000B	A224205	HARNESS FC THERMISTOR-ONYX	ELEC	1.000 EA	1.000 EA
105	A2243610000	A224361	SS WASHER DOOR STOPPER-ONYX	STEEL	1.000 EA	1.000 EA
106	A204316000B	A204316	SLEEVE HINGE	PLASTIC	1.000 EA	1.000 EA
107	A224069D800	A224069	HUMIDITY CONTROL - ONYX	PLASTIC	1.000 EA	1.000 EA
108	A222119000B	A222119	BRACKET FAN MOTOR MOUNTING	PLASTIC	1.000 EA	1.000 EA
109	A222120000B	A222120	HOUSING, FAN MOTOR, DUO	PLASTIC	1.000 EA	1.000 EA
110	A222148000A	A222148	GROMET FOR FIXING MOTOR	RUBBER	2.000 EA	2.000 EA
111	A2243860000	A224196	COVER AIR DIFFUSOR DLX - ONYX	ASSY	1.000 EA	1.000 EA
112	A2243860000	A224196	COVER AIR DIFFUSER ASSY 450L DLX - ONYX	ASSY	1.000 EA	1.000 EA
113	A225284000C	A225284	POWER CORD- DLX,ONYX -Australia	ELEC	1.000 EA	1.000 EA
114	A2081860000	A208186	SUPPORT BUSH, ICE TWISTER	PLASTIC	2.000 EA	2.000 EA
115	D111155700K	D111155700K	SCREW FOR LUGS OF ICE TWISTER BRACKET TOP	SCREW	3.000 EA	3.000 EA
116	A2223760000	A222303	SCREW FOR LUGS OF ICE TWISTER BRACKET SIDE	SCREW	1.000 EA	1.000 EA
117	A2240990000	A224099	SUB ASSY RC LED - ONYX	ASSY	1.000 EA	1.000 EA
118	A224104000A	A224104	FC LED ASSEMBLY - ONYX	ELEC	1.000 EA	1.000 EA
119	A2243970000	A224397	SOCKLE KIT ( SUB ASSY ) -ONYX	PLASTIC	1.000 EA	1.000 EA
120	A2242152000	A224032	DOOR FC ASSY,LH,AUS,WHITE -ONYX,DLX	FOAM DOOR	1.000 EA	1.000 EA
121	A2242155500	A224032	DOOR FC ASSY,LH,AUS,METALON -ONYX,DLX	FOAM DOOR	1.000 EA	1.000 EA
122	A2244452000	A224445	DOOR RC ASSY,LH,450L,AUS,WHITE -ONYX,DLX	FOAM DOOR	1.000 EA	1.000 EA
123	A2244455500	A224445	DOOR RC ASSY,LH,450L,AUS,METALON -ONYX,DLX	FOAM DOOR	1.000 EA	1.000 EA
124	A2244742000	A224474	DOOR RC ASSY,LH,410L,AUS,WHITE -ONYX,DLX	FOAM DOOR	1.000 EA	1.000 EA
125	A2244745500	A224474	DOOR RC ASSY,LH,410L,AUS,METALON -ONYX,DLX	FOAM DOOR	1.000 EA	1.000 EA
126	A224481000A	A224481	Core Board Box Assembly Aust Dlx - Onyx	ASSY	1.000 EA	1.000 EA
127	A224215B700	A224215	FOAMED FC DOOR AUST DLX BLACK HAIR – ONYX	FOAM DOOR	1.000 EA	.....
128	A224474B700	A224474	FOAMED RC DOOR AUST DLX BLACK HAIR - ONYX	FOAM DOOR	1.000 EA	.....
129	A224087A700	A224087	TOP HINGE COVER BLACK - ONYX	PLASTIC	1.000 EA	.....
130	A224278A70A	A224278	CAP, TOP HINGE COVER BLACK - ONYX	PLASTIC	1.000 EA	.....
131	A224110A700	A224110	COVER,CENTRE RAIL NON HINGE BLACK - ONYX	PLASTIC	1.000 EA	.....
132	A224199A70A	A224199	SOCKLE, BOTTOM HINGE BLACK, LH - ONYX	PLASTIC	1.000 EA	.....
133	A224198A70A	A224198	SOCKLE, BOTTOM HINGE BLACK, RH - ONYX	PLASTIC	1.000 EA	.....
134	A224234A70A	A224234	SOCKLE CAP BLACK - ONYX	PLASTIC	1.000 EA	.....
135	A224233A700	A224233	COMPIMENT END CAP, FC TOP,BLACK LH-ONYX	PLASTIC	1.000 EA	.....
136	A2241780000	A224178	INTEGRATED DEFROST HEATER,KENMORE-ONYX	Heater	1.000 EA	1.000 EA
137	A2294830000	A229483	Tube Suction Complement for EMY65HLC Comp	copper ube	1.000EA	1.000EA
138	A224215K900	A224215	FOAMED FC DOOR AUST DLX SLIKE LH ONYX	FOAM DOOR	1.000EA	1.000EA
139	A224474K900	A224474	FOAMED RC DOOR 410L DLX AUST SLIKE LH OP	FOAM DOOR	1.000EA	
140	A224445K900	A224445	FOAMED RC DOOR 450L DLX AUST SLIKE LH OP	FOAM DOOR		1.000 EA

Note- yellow coloured parts are new parts.

